

Amendments to and Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently Amended) A stylet for use with a medical stimulating lead, the stylet comprising:

an outer covering, made of a metal outer covering material; and
an inner core, made of inner core material, the inner core inside the outer covering,

wherein the outer covering material and inner core material have different elastic and buckling properties; and

wherein the outer covering and inner core are not movable with respect to each other at all times; and

wherein the outer covering includes a layer which is constructed to be physically continuous throughout the layer, with no mechanical separation anywhere in the layer.

Claim 2 (Original) The stylet of claim 1, wherein the outer covering material is a super-elastic material, which outer covering material is substantially more resistant to permanent bending deformation than the inner core material; and wherein the inner core material is a linear elastic material, which inner core material is substantially more resistant to buckling than the outer covering material.

Claim 3 (Original) The stylet of claim 2, wherein the inner core material is selected from the group consisting of cold drawn 304 stainless steel, 316 stainless steel, 316L stainless steel; and wherein the outer material is nitinol (425 nickel-titanium alloy).

Claim 4 (Previously Presented) The stylet of claim 3, wherein the outer covering defines a tube and the inner core is a pre-formed rod.

Claim 5 (Original) The stylet of claim 1, wherein the stylet is isodiametric.

Claim 6 (Original) The stylet of claim 5, wherein the outer covering has a variable wall thickness along the length of the stylet.

Claim 7 (Original) The stylet of claim 5, wherein the outer covering has a substantially constant wall thickness along the length of the stylet.

Claim 8 (Original) The stylet of claim 1, wherein the stylet has a variable outer circumference along the length of said stylet.

Claim 9 (Original) The stylet of claim 8, wherein the outer covering has a substantially constant wall thickness along the length of the stylet.

Claim 10 (Original) The stylet of claim 8, wherein the inner core has a substantially constant thickness along the length of the stylet.

Claim 11 (Original) The stylet of claim 1, wherein the inner core material is a super-elastic material, which inner core material is substantially more resistant to permanent bending deformation than the outer covering material; and wherein the outer covering material is a linear-elastic material, which outer covering material is substantially more resistant to buckling than the inner core material.

Claim 12 (Original) The stylet of claim 11, wherein the outer covering material is selected from the group consisting of cold drawn 304 stainless steel, 316 stainless steel, 316L stainless steel, and the inner core material is nitinol (425 nickel-titanium alloy).

Claim 13 (Previously Presented) The stylet of claim 1, wherein the outer covering defines a tube and the inner core is a pre-formed rod that has been pre-stressed so that the inner core operates on the compression side of the stress-strain curve.

Claim 14 (Currently Amended) A stylet for use with a medical stimulating lead, the stylet comprising:

an outer covering; and
an inner core, made of inner core material, inside the outer covering,
wherein the outer covering and inner core are not movable with respect to each other ~~at all times~~;

wherein the outer covering is made of an outer metal covering material which is substantially more flexible than inner core material; and

wherein the inner core material is substantially more resistant to buckling than the outer covering material; and

wherein the outer covering includes a layer which is constructed to be physically continuous throughout the layer, with no mechanical separation anywhere in the layer.

Claim 15 (Original) The stylet of claim 14, wherein the outer covering material is selected from the group consisting of cold drawn 304 stainless steel, 316 stainless steel, 316L stainless steel and nitinol (425 nickel-titanium alloy); and wherein the inner core material is selected from the group consisting of magnesia partially stabilized Zirconia, Yttria stabilized Zirconia, ceramic, epoxy, and hard polyurethane.

Claim 16 (Original) The stylet of claim 15, wherein the stylet is dimensioned for use in deep brain stimulation (DBS).

Claim 17 (Previously Presented) The stylet of claim 14, wherein the outer covering defines a tube, having a wall cross-section defining an annulus.

Claim 18 (Currently Amended) A stimulating lead system which is insertable into tissue more than once, said system comprising:

 a stimulating lead, said lead having an inner lumen along its axial length; and

 a stylet, configured and dimensioned to fit inside said lumen, wherein said stylet comprises:

 an outer covering; and

 an inner core material inside said outer covering,

 wherein the outer covering and inner core material are not movable with respect to each other at all times;

 wherein the outer covering is made of an outer metal covering material which is substantially more flexible than the inner core material; and

 wherein the inner core material is substantially more resistant to buckling than the outer covering material; and

wherein the outer covering includes a layer which is constructed to be physically continuous throughout the layer, with no mechanical separation anywhere in the layer.

Claim 19 (Original) The lead system of claim 18,

 wherein the outer covering material is selected from the group consisting of cold drawn 304 stainless steel, 316 stainless steel, 316L stainless steel and nitinol (425 nickel-titanium alloy); and

 wherein the inner core material is selected from the group consisting of magnesia partially stabilized Zirconia, Yttria stabilized Zirconia, ceramics, epoxy, and hard polyurethane.

Claim 20 (Original) The lead system of claim 19, wherein the lead system, including the stylet, is dimensioned for use in DBS application.